

RECENT AND PERIODICAL LITERATURE.

Bolk, L. Professor of Anatomy, University of Amsterdam. *Das Problem der Menschwerdung*. Gustav Fischer. Jena, 1926. Pp. 44. Price 2.10 marks.

In 1921 Professor Bolk delivered an address on behalf of the University of London with the title "The Part played by the Endocrine Glands in the Evolution of Man," which was published in *The Lancet* on September 10, 1921 (p. 588). The present brochure is the report of an address delivered to the German Anatomical Society at its meeting in Freiburg on April 15, 1926, and represents an elaboration of certain of the points raised in his argument five years ago, and in particular what he now calls the "foetalisation hypothesis." By this he means the speculation that man differs from the apes, not in the addition of any new features to the Simian structure, but by retaining into adult life many peculiarities that are present in the foetal ape and lost in the process of growing up. According to him man is a sort of Simian "Peter Pan."

I need not criticise this doctrine here, for I have already done so on several occasions. But if Professor Bolk errs, in my opinion, in pushing a fascinating speculation perilously near to the limits of absurdity, so long as he is stimulated by it to collect illuminating comparisons between the foetal hair, face, teeth and organs of reproduction, et cetera, in man and other Primates, as he has done in this lecture, one is bound to admit that his essays in hypothesis-making are not wholly in vain.

G. ELLIOT-SMITH.

Bonar, James. LL.D. *Malthus and his Work*. George Allan and Unwin, Ltd. 2nd edition, London. 1924. Pp. 438.

Mr. Bonar writes, "There are signs that the twentieth century will give him (Malthus) a fair hearing." One hopes that he is right. Beyond that, there is little more to say, except that this is a good new edition, with a few minor alterations, of an excellent old book—a book which should go far to securing that fair hearing.

E.M.

Browning, C. H., (Edited by). *Immuno-chemical Studies*. London, Constable and Co., 12s. 6d.

This work is devoted almost entirely to the chemical basis of immunity reactions. The work described has already been published in various journals and the papers have been incorporated into the eight chapters of the book. In some cases the articles have been reprinted almost word for word. The introductory chapter by Professor Browning deals with the general principles of immunological reactions, chiefly of antibody action. The following chapters deal with chemical properties and behaviour of antigens and antibodies, of opsonic action, and of complement. The subjects dealt with are extremely complicated and will be intelligible only to the immunologist. The book however should be of great interest to the biochemist who has turned his attention to immunological work.

E. BELLERBY.

Buxton, P. A. "The Depopulation of the New Hebrides and other Parts of Melanesia."

"The people of the New Hebrides and indeed, of Melanesia in general, are dying out. To some extent this is due to the constant wars, the belief in magic, the bad housing, the unsuitable feeding of infants, the treatment of women, the practice of abortion and other customs, all of which prevailed in the old days, and still prevail to a large extent in most parts of the group. But though one must bear the existence of all these facts in mind, one cannot regard them as directly

responsible for the depopulation (which has set in during the last century), because the customs have prevailed from time immemorial.

The majority of the Europeans who were in the group during the nineteenth century, were trading, either in sandal-wood or in human beings. They are directly responsible for a great number of kidnappings, and deaths, and they brought with them epidemics which sometimes carried off as much as a third of the population of an island in a few weeks."

"Among the endemic diseases, malaria and yaws are of major importance, because they render the race unhealthy and liable to succumb to introduced epidemics. They must only be regarded as two among many factors, all of which affect the question of depopulation; malaria is entirely absent from one island, but the population of that island has declined rapidly from other causes.

Of the introduced diseases, dysentery and the pulmonary diseases are of very great importance.

Apart from all the factors which I have mentioned, I have discovered two very disquieting facts. The rate of decline of the population of most islands is no less now than it was half a century ago; the race continues to die out, irrespective of the abolition of the "black-birding," and of the reduction in the severity of the epidemics. Moreover it appears that in all parts of the group about 118 males are born per hundred females, and this disproportion persists through life. This continued decline, and this excessive production of males, would almost warrant one in saying that the eventual extinction of many of the races now living in the New Hebrides is inevitable."

Coulter, John M., and Merle, C. *Where Evolution and Religion Meet*. The Macmillan Company, 1924. Pp. 105. Price 6s.

This little book covers in just over 100 pages, some of the profoundest problems in which people are interested to-day.

It is slightly novel for an author writing on evolution to put De Vries as the originator of the Mutation Theory, but that is Mr. Coulter's line. He mentions ortho-genesis and other subsidiary theories of special regional evolution, and puts De Vries after Lamarck and Darwin.

One feels that the book is safe but not profound, that is to day, Chapter 7 on "modern views" takes the line that many existing theories must be contributory to a complete and satisfactory explanation. Finally the position is maintained, (but without greater emphasis or illumination than in other books of the same type), that there is no antagonism between the belief in the divine order of the world, and a belief in a divine order of natural evolution. C.B.S.H.

Graham Kerr, J., M.A., F.R.S., Professor of Zoology, University of Glasgow. *Zoology and the Medical Curriculum*. (Reprinted from the "Glasgow Medical Journal" April, 1925).

This communication is devoted to fresh arguments for the importance of Zoology in the medical curriculum.

It is important firstly as a method of increasing the power of observation and of reasoning based thereon. The training in the Biological method is simply a development of that by which the greatest advance in intellectual method is made by students in early childhood, namely by handling, observing and reasoning about objects.

The course in Zoology saves times by preparing the mind for, and teaching the elementary technique of the study of Human Anatomy and Physiology. Detailed Knowledge of Zoology is not so important as that the student should be imbued with the spirit of the naturalist. So many of the problems of medicine, when approached in this spirit, have been resolved.

Professor Graham Kerr illustrates this view by comparing the cells of the body with the inhabitants of a pool of water, suggesting that the former have still properties which can be referred to their aquatic descent. He urges the importance of broad conceptions of this kind in considering the interactions of the different cells of the body especially with reference to malignant disease.

D. W. ROY.

Ludovici, Anthony M. *Woman*. 2nd edition, 1926. London. Constable & Co. Pp. 378. Price, 7s. 6d.

Mr. Ludovici is a militant pagan. He recognises only the body with its vital

needs: he ignores the soul and a future life, and damns all chivalry and romance. He has one mystical belief—in the purpose of life. This purpose is most served and best served by Woman in her function as wife and mother, in multiplying the species. Thus the feminine is glorified; and the feminist denounced. The prostitute is justified, for her instincts are sound; and State recognition and control of prostitution are advocated as being a service necessary to the community. All social order must be left to men, for in that is their instinct specialised. The fundamental cause of all our troubles is the declining masculinity of men, with its reactions upon women and the consequent growth of feminism. Mr. Ludovici fairly claims that his attitude is neither Puritanical nor licentious and libidinous. But it can scarcely be called either scientific or dispassionate; for his biology is founded on inspiration, and his sociology on hearsay. Like many others, he forgets that Woman is no more and no less an eternal mystery to men than Man is to women. His excited psychology is an inadequate substitute for that third sex we so badly need to hold the balance true. Nevertheless, *Woman* is an entertaining book, sincere and free from cant, vigorously written, and a stimulant of thought.

E.M.

Mackmurdo, A. H. *The Human Hive: Its Life and Law.* Watts and Co., London, 1926. Pp. 309. Price 7s. 6d. nett.

Mr. Mackmurdo, who wrote this book before the war, does not seem to have been in the least shaken by that cataclysm—but then he lives in America! He remains a Socialist, of the Utopian type, with a profound belief in the perfectibility of human nature. To quote from the description on the wrapper: "He regards the Human Hive as an organisation in process of development, under which all opinions, beliefs, and politics are undergoing beneficent changes, institutions being socialized and relationships being humanized." He recognizes as important the biological basis of men, but is in no wise perturbed by the discussion on the inheritance of acquired characters. He writes: "Indeed, this inherited power of educability in a special direction is proportioned to the degree of facility which the person has attained at the birth-period of the offspring; the latest born inheriting the highest power"—a sentence which should give some idea of the transcendent value of the book as a whole.

E.M.

The New Republic. *Concerning Parents.* New York, 1926. Pp. 284. Price \$1 nett.

It is taken for granted throughout this "Symposium on Present Day Parenthood," that almost the sole functions of parents are the begetting and bearing of children. It will scarcely appeal, therefore, to English people who still have a rooted prejudice in favour of bringing up their own children. One writer, it is true, believes that a certain amount of home influence is a good thing. But he bases this belief on the rather curious ground that "parental reassurance" is lacking in the lives of institutional children, in whom, therefore, "the incidence of delinquency and psychoneurotic disorder is high"! Indeed, like so much other American literature, this book is obsessed by the "new psychology" and by "repressions." The earnest writers seem quite blind to the possibility of heredity being a factor in the behaviour of both parents and children.

E.M.

(1) *Compte Rendu des seances de la Societe de physique et d'histoire naturelle de Geneve, Vol. 40, No. 3.* Recherches sur l'hérédité de Cobayes albinos porteurs d'un facteur de coloration. **Pictet, Arnold et Ferrero. Mlle. A.**

(2) **Arnold Pictet.** Augmentation graduelle, de génération en génération, de l'étendue de la panachure sur le pelage des descendants de Cobayes panachés croisés avec des albinos. *Ibid.* Vol. 42, No. 1.

(3) **Arnold Pictet.** Sur l'existence, chez les Cobayes, de deux facteurs de panachure pour la tête, dissociables par croisements. *Ibid.* Vol. 42, No. 1.

(4) **Arnold Pictet et Mlle. A. Ferrero.** Ségrégation dans un croisement entre espèces de Cobayes. *Ibid.* Vol. 41, No. 2.

(5) **Arnold Pictet.** Résultats négatifs d'expériences d'alcoolisme sur les Cobayes. *Ibid.* Vol. 41, No. 1.

In the first three of these studies the authors find that pattern in the guinea pig

is determined by several (for the most part undefined) factors and that these pattern factors, as well as the colour factors, can be carried by albino animals.

The fourth paper is a brief account of the species cross *C. aperea* ♂ × *C. cobaya* ♀. The F1 animals are fertile in both sexes; it is noteworthy that in the hybrid *C. rufescens* × *cobaya* the ♀ only is fertile. Blaringhem, who made the cross *aperea* × *cobaya* as long ago as 1910, found that the hybrid bred true; but the present authors found segregation in F2 in at least six well defined characters.

Experiments on the effects of alcohol vapour on the rate of growth of guinea pigs are recorded in the fifth of these studies. M. Pictet, working with two alcoholised and one control animal, found a slight advantage in favour of the alcoholised animals. Neither did he notice any sign of sterility or abnormality in the offspring from the two treated animals.

The most interesting part of the communication is a note that in the author's stock of ordinary guinea pigs, he observed a family which, from generation to generation, shewed abortion, a high infant mortality, epileptiform convulsions, retarded development, blindness, partial paralysis, and all sorts of monstrous offspring. These signs of "degeneracy" became particularly marked when from time to time the conditions under which the stock were kept, fell below normal. It will be remembered that these manifestations were exactly those found by Stockard in his now famous experiments and have been held by him as undoubtedly due to the inherited effect of alcoholic poisoning. As M. Pictet pertinently points out, we are entitled, in view of the observations described above, to enquire a little more carefully into the genetic nature of Stockard's material.

M.S.P.

Seabury, David. *Unmasking Our Minds.* Boni and Liveright. New York, Reprint, 1926. Pp. 429. Price \$2.50 nett.

Mr. Seabury's belief in the inheritance of acquired characters is profound. Supposing that the first feeble-minded Kallikak child had been brought up in a good home, "Certainly twenty-five years of constructive influence in the life of the child, with corrective physical and mental hygiene, educational and glandular therapy, would have led to improvement in the next generation and marriage with a mate carrying a better blood back-ground. In several generations the line would have corrected itself. This must be true, else the basic principle of human progress is denied"!

There are frequent like remarks about improving or damaging the race. Indeed, though Mr. Seabury constantly refers to heredity, and to the importance of inherent tendencies in governing individual development, he seems singularly unacquainted with the most elementary biology. Though he writes of the zygote and of the development of body and mind therefrom by cellular mitosis, he does not appear to have heard of Mendel—and even considers that an "atavism" is a "throwback" to some one forbear! The sub-title of the book is *Self-Discovery through Modern Psychology*; but the psychology is no more scientific than the biology is accurate. Their places are taken by imagination. We are told, for instance, the exact mental processes which turned a potential Victor Hugo into Napoleon; and Savonarola's life and mentality are similarly interpreted. Sentimentality oozes through the imagination: with them go a habit of superlative adjectives, and an unbounded belief in Progress and the New Psychology.

E.M.

Stopes, Marie Carmichael. D.Sc., Ph.D. *The Human Body.* Pp. 225+5 charts. Price 6s. 6d. *Sex and the Young.* Pp. 190. Price. 6s. 6d. 1926. The Gill Publishing Co.

The first of these books is intended to be placed in the hands of adolescents: the second is for the instruction of parents and teachers. Their association as companion volumes justifies the consideration of "The Human Body" as primarily a sex book, though as an introduction to general physiology it makes good reading for the young or for adults who have no special knowledge of the subject. In fact it is in the part not bearing on Sex that the book is most successful, for in the chapters on Reproduction Dr. Stopes has shown less courage and outspokenness than one would expect of the authoress of "Married Love". Starting with the advantage that she had no need for concession to Pharisaism (for every good Pharisee

knows that "Marie Stopes is too shocking to read"), the authoress had an exceptionally fine opportunity of writing simply and directly for the ordinary healthy-minded "bloke", who can take off his clothes without blushing and is not horrified by plain English—and possibly for his sister too, for Nature knows the feminine of "bloke", even if the dictionary does not. But the chapters on Reproduction will fall very far short of satisfying the normal boy's natural and entirely creditable curiosity, and will leave him with a guilty and confused impression that purity consists largely in circumlocution and the use of Latin—an impression which would be heightened were he to capture his teacher's copy of "Sex and the Young." Heaven preserve us from the schoolboy who "perspires" because it is indelicate to "sweat."

But little or no positive harm will be done in this way, for the normal young mind is robust enough to throw off such superstitions: one regrets rather the missed opportunities of good. And yet these are not all missed; and all the other sex books for the young are so infinitely cowardly that I would give my vote for "The Human Body" (on which I feel more qualified to express an opinion than on its companion volume) as the boldest, and therefore, the best, of such works that have yet come to my notice.

W. HOPE-JONES.

Tozzer, Professor A. M. *Social Origins and Social Continuities.* The Macmillan Co. New York., 1925. Pp. 286. Price 10s. 6d. net.

This book, a revision of a course of lectures, is professedly for the layman "who cares to acquaint himself with the general points of view of American Anthropology." It scarcely achieves this aim, leaving upon the mind of the reader a rather confused sense of unrelated facts and opinions. The author appears to have several philosophical axes to grind; but it is difficult to find out exactly what he is driving at, because he spends most of his time blunting the axes of his opponents. He opposes what he considers the usual view, that "man is many, and civilization one"; and he maintains, on the contrary, that "Man is one, civilizations are many"—a phrase more striking than illuminating. Consequently he pours scorn on the "Racial School," and particularly upon the hypothesis of Nordic superiority. He would like to condemn eugenics; but does not know enough about it to see how it affects his own theories. He considers that civilized man is no better than he ought to be, and certainly no better than the savage.

E.M.

Barr, Sir James, C.B.E., D.Litt. *The Question of Population, with special Reference to Heredity and Birth-Control.* London. Reprinted from the *Franco-British Medical Review*, 1926. Pp. 14.

A vigorous little pamphlet, full of varied vital and other statistics, with Sir James's own interpretations thereof.

E.M.

Bond, C. J., C.M.G., F.R.C.S. *The Human Factor in Industry.* Leicester: Thornley and Son, 1926. Pp. 24.

A clear and concise little introduction to modern industrial psychology; an excellent illustration of the need for psychology in economics, and for the recognition of heredity as a factor in both.

E.M.

Cecil, Lord Hugh. *Natural Instinct the Basis of Social Institutions.* London. 1926. Oxford University Press, Humphrey Milford. Pp. 15. Price 1s.

Though not primarily eugenic, this Sidney Ball lecture starts off soundly enough by arguing the main eugenic teaching—that man, with his natural instincts, is, and must be, the basis of the State he makes. The argument, however, is not pursued to its logical conclusion—that the success of the State must, therefore, depend upon the quality of the citizens. An attempt, not very successful and consistent, is made to define the instincts of humanity; and to use that definition to support Lord Hugh Cecil's political opinions.

E.M.

Fantham, H. B., M.A., D.Sc. *Heredity in Man: Its Importance both Biologically and Educationally* (1924) and *Some Factors in Eugenics, together with Notes on some South African Cases* (1925). Johannesburg. Two pamphlets reprinted from the *South African Journal of Science*.

It is encouraging to find that eugenic subjects are being spread, not only widely, but well. South Africa, of course, has its own problems; and, as one would expect, questions of race, colour, and miscegenation are treated rather at length. In other respects, these two articles are a sound and adequate introduction, clearly thought out and simply stated, to the whole subject. But it seems a mistaken attitude to regard the recessive character of some forms of hereditary disease as "fortunate"—for the recessive is less easily eliminated than the dominant, and it is frequently capable of causing much "subterranean" harm.

There are included the following original pedigree charts:

- Inheritance of permanently bent little finger;
- Inheritance of rings of white hair;
- Inheritance of baldness;
- Inheritance of tallness;
- Inheritance of shortness;
- Inheritance of supernumerary little toe;
- Inheritance of "rabbit" asthma;
- Inheritance of mathematical ability;
- Inheritance of sense of humour.

Some interesting observations are also recorded of the results of skin-colour mixture—results certainly not to be explained by any theories of "blending inheritance."

E.M.

Gallichan, Walter M. *Letters to a Young Man on Love and Health*. T. Werner Laurie, Ltd., London, 1926. Pp. 123. Price 4s. 6d.

"LEONARD," to whom these "letters" are written, will learn from them quite a useful amount of sex sense and sex hygiene—though he may need a mouth-wash after the sentiment. But they will teach him neither the habit of scientific thought, nor anything about heredity and eugenics. For instance, the greater mortality, higher incidence of insanity, etc., among the unmarried, as compared with the married, are cited as "striking proof of the healthfulness of early marriage!"

"Uncle" Gallichan should really be more careful in his interpretation of these, and other, statistics. Also, though heredity is sometimes mentioned, "Leonard" is led to believe that it depends upon the habits, healthy or unhealthy, of the parents; and that too frequent pregnancies are a cause of racial deterioration. He might be pardoned for concluding, from a passage on p. 83, that the maternal ovum is the all-important factor in heredity, to which the paternal sperm but gives the initial impetus. The following passage is a quite insufficient qualification. But the real question is whether such books as this, however well meant, do not do more harm, by exciting sexual curiosity, than good. The education really needed should come much earlier in childhood. If the facts of sex and heredity were taught, without any holy awe and mystery, as part of a matter-of-fact biological curriculum in the schools, children would be automatically prepared for the difficulties of adolescence and the responsibilities of parentage.

E.M.

Huxley, Leonard, Ll.D. *Progress and the Unfit*. Watts & Co., London, 1926. Pp. 52. Price 2s. nett.

THIS, one of the Conway lectures, is a sound piece of eugenic teaching and philosophy, if not always genetically accurate. Unfortunately, Dr. Huxley had not taken the trouble to find out precisely what are the practical eugenic suggestions; or he certainly would not have regarded the proposed "methods of restriction" as "drastic" or "aggressively wide," as compared with those "known across the Atlantic"!

E.M.

Joad, C. E. M. *Thrasymachus, or the Future of Morals*. "To-day and Tomorrow" series. Kegan Paul, Trench, Trubner & Co., Ltd., London, 1925. Pp. 92. Price 2s. 6d. nett.

At the end of this book the author tries to rebut in advance the charge of cheap

cynicism. The effort is not successful. *The Times Literary Supplement* described the style as one of "deliberate brilliance." "Would-be brilliant; deliberately nasty," is an apter description. No book can be called brilliant in which the inconsistencies and contradictions are almost as numerous as the pages—e.g., on pages 5 and 6 morality and justice are defined as the interest of the stronger; and on page 10 this sentence is approvingly quoted from Mandeville: "It is evident that the first rudiment of morality broached by skilful politicians to make men useful to each other as well as tractable. . ." Yet on page 22 we find "Morality, which has always been the special emanation of the herd. . ." And a little further on, "Thus morality represents the average man's attempt to console himself. . .!"

E.M.

Mott, Sir Frederick, K.B.E., etc. *The Harveian Oration on Some Developments of Harvey's Doctrine "Omne Vivum ex Ovo."* London, John Bale, Sons and Daniellson, Ltd., 1925. Pp. 36.
The Investigation of Some of the Causes of Insanity. London, Adlard and Son and West Newman, Ltd., Pp. 17.

THE second of these two reprinted addresses is only a summary of the first. They are both good accounts of Sir Frederick's views and work, if a little technical for the lay reader. There is, however, little in them really new.

E.M.

Simon, E. D. *The Inheritance of Riches.* London. Longmans, Green. & Co., 1925. Pp. 38. Price 6d.

EUGENICS is concerned with biological inheritance: this little pamphlet deals, from the Liberal point of view, with the inheritance of wealth. The two questions are intimately connected in their relation to our social problems; and they must be studied together. Though the inheritance of wealth does, in the main, depend upon the inheritance of ability, the two are not synonymous; and there are, without doubt, many glaring anomalies and injustices in Society to-day. Mr. Simon's aim is to remedy these, without too much levelling down, by alterations and extensions of the death-duty principle of Taxation. The arguments are open to many criticisms, political, economic, psychological, and common-sensible—there is, indeed, a certain self-satisfied blindness in the style of writing—but the root idea is interesting. Taxation of inheritance, like family endowment, may be an instrument for vast racial good or ill; but, unlike family endowment, it does not touch the questions of inferior stocks or definitely defective types. What would have been the racial effect upon this country if property had been inherited by Borough English, instead of by primogeniture; and what if inheritance had always been equalized?

Mr. Simon ignores eugenic aspects, and contemptuously dismisses the greatest of all political forces—sentiment. But he has got hold of an idea worthy of eugenic attention.

E.M.

Is Evolution True? Watts & Co. London, 1925. Pp. 59. Price 1s. nett.

THIS is the report of a debate between G. M. Price, Professor of Geology, Union College, Nebraska, and Joseph McCabe. Prof. Price's arguments against the theory of evolution are not as satisfying as the argument of the old theologians, that the devil put the fossils into the rocks in order to deceive mankind. Mr. McCabe, representing the Rationalist Press Association, Ltd., only just refers at large to the various evidences of evolution. The debate in short, like most others, gets absolutely nowhere.

E.M.

PAMPHLETS AND PERIODICALS.

Biometrika. Vol. XVIII. Parts I. and II., pp. 1—232.

On the avuncular relationship. K. Pearson, p. 231—232.

THE only point of even remotely eugenic interest which the reviewer can find in this bulky double number is a note by K. Pearson on the avuncular relationship. Professor Pearson writes to say that he has now calculated the correlation coefficient for (1) uncle and nephew, (ii) cousins, from the known values for (a) husband and wife, (b) parent and child, (c) brethren. The algebraical proof is not given, but it evidently involved the disputable assumption that fraternal correlation is

equal to the square of the multiple correlation of the descendant with his entire ancestry.

The mean values obtained are somewhat startling, the avuncular correlation is found to be .37, and that for cousins .26. These values, however, so far from clearing up the difficulty of previous contradictory results, in reality only add to the confusion.

The outstanding difficulty in the previous work consisted in the fact that two workers namely Miss E. M. Elderton, working experimentally, and Dr. E. C. Snow, on the basis afforded by Mendelian theory, had both arrived at the conclusion that cousins were as closely, or slightly more closely, correlated than uncle and nephew. This view was *a priori* untenable since the cousin is only connected *via* a single uncle or aunt; we now learn that Sir F. Galton strongly objected to Snow's conclusions, writing in 1907:—

“There is one serious difficulty in the conclusion, namely that the relation between a person and his uncle is the same as that between that person and his uncle's child. This cannot be the case unless the wife of the uncle is a counterpart of himself.”

In spite of Galton's objection, the anomalous resemblance of cousins was apparently accepted at the Galton Laboratory, and defended by the analogous fact that the correlation between brothers is slightly higher than that of parent with child. Brothers, however, have two parents in common, and the case of half brothers, more closely analogous to cousins in this respect, does not seem to have been considered.

It was not until 1916 that the reviewer, in examining Snow's theoretical papers, hit upon a fact of an altogether unexpected nature; instead of the case of ordinary cousins, Snow had, apparently through inadvertence, treated the case of double cousins, in which both parents of one family are fraternally related to the parents of the other. This case is, of course, analogous to that of brethren related through both parents, and the correlation between double cousins should *a priori* be as great as, or a trifle greater than, the avuncular correlation; while that between ordinary cousins should be little more than half as great. On the Mendelian theory, the reviewer found the avuncular correlation about .26 to .30, and that of cousins about .15 to .20.

In view of his new algebraic result, Prof. Pearson is now inclined to admit that Galton was right, and that the avuncular relationship really is closer than that of cousinship! It is to be feared, however, that in doing so he is inclined to accept enormously exaggerated values for both correlations. On no theory can the avuncular correlation differ greatly from the product of the parental and the fraternal, and this can scarcely approach .37. From Galton's eye colour data Pearson and Lee gave (1901) the following averages:

| | |
|-----------------|-------|
| Paternal | *4947 |
| Fraternal | *4749 |
| Avuncular | *2650 |
| P × F | *2349 |

Even Miss Elderton's experimental value for the avuncular correlation, .238, gives no support to the new value suggested. The reviewer has no brief for the accuracy of either of these empirical determinations. He is only concerned to point out that in avoiding the one absurdity of making a cousin as close a relative as an uncle or aunt, it would be better to abandon the high correlation for cousins, for which the evidence is exceedingly frail, rather than to throw over the experimental determinations of the avuncular correlation, which whatever their intrinsic value, are at least in accordance with common sense, and with well determined paternal and fraternal correlations.

R. A. FISHER.

Health and Empire, June, 1926.

This number contains several interesting articles, but of these, that on Economics of Public Health, by Colonel E. Freemantle is the most important from the Eugenic point of view. It was originally published in the Post Graduate Medical Journal. In it the author endeavours to estimate the cost of ill-health to the nation as a whole, and though some of the figures are ‘mere guesses at the

truth," the effort is a very commendable one. The summary which is given of the conclusions arrived at is worth quoting in full:—

| | |
|--|---------------------|
| Annual gain by productive value of lives saved | 77,212,000 |
| Annual gain by longer age of whole people | 200,000,000 |
| Total gain | £277,212,000 |
| Annual cost of public health services | 43,900,000 |
| Annual cost of school medical service | 3,200,000 |
| Total cost of preventive services | £47,100,000 |
| Annual cost of sickness: | |
| By loss of patients' work | 80,000,000 |
| By lesser efficiency of others | 80,000,000 |
| By loss of work of those engaged in attendance and treatment of sick | 10,000,000 |
| Care and treatment in institutions | 50,000,000 |
| Care and treatment at home.. .. . | 24,000,000 |
| Total cost of sickness | £244,000,000 |

To this should be added cost of indirect losses by disturbance of industry and transport, and effect on morale, not limited to time of epidemic, giving a total, say, of £300,000,000. And of this, according to Professor Fisher, one-third is preventable—viz., £100,000,000."

As to the first of these items, namely the saving of £277,212,000 a year which actually had resulted from a saving of life and increased length of life, the author does not seem to take any account of the fall in the birth-rate which must have followed as the direct result of this fall in the death rate; nor make any allowance for the lives saved being in all probability of a somewhat inferior type on the average.

Turning to the last item, this huge sum, £200,000,000 a year is held by this author not to be preventable. We presume this means not preventable by any means now available for cure or prevention in the case of persons belonging to this generation. Presumably the results of accidents are classed amongst the unpreventable causes of ill health; but we cannot but feel that a very large part of this annual expenditure of £200,000,000 a year comes within the scope of conceivable eugenic reform as regard the generations of the distant future.

L.D.

Hereditas, Vol. 7, Vol. 2, pp. 189—214, 1926, there appears a paper entitled "Consequence of Mendelism on the Problem of breeding in Livestock" in this volume. The author, Baashuus Jessen, lays the greater emphasis on the inheritance of "blood" and propounds a measurement of inbreeding which is based on Galton's Law. According to Baashuus Jessen everyone may be regarded as being inbred 50% to his father and 50% to his mother. If applied to plants where self pollination has occurred the progeny would be 100% inbred. This is the logical conclusion of the author's method even though it is a *reductio ad absurdum*.

It is unfortunate that no serious attention is paid to homozygosis though this is a fundamental conception of Mendelism. It must therefore be assumed that the author has failed entirely to grasp the meaning of Dr. Sewall Wright's co-efficient of inbreeding which is an estimate of homozygosity based on the number of times a certain ancestor appears in the pedigrees of *both* the sire and the dam of the individual for which the co-efficient is calculated. Obviously there can be no homozygosity due to inbreeding if a certain ancestor appears only in the pedigree of the sire and not in that of the dam, no matter how frequently he may appear.

Some confusions of thoughts and terms occur in this paper. For instance the statement is made that, "No greater biological importance can be attached to mating brother and sister than to mating half brother and sister." The author also states that to him the aim of inbreeding appears to consist only in the fixation of desirable qualities and not in causing the segregation of inferior types for the purpose of rejecting some of the progeny. There can be little doubt that the present hiatus in the art of animal breeding in this country is due to the fact that recessive defects are of such frequent occurrence as to bar the road to further progress. No

doubt for a few generations the policy advocated by the writer may make some show of success but if, as was the case of Bates' Duchess Shorthorns, the recessive factors for sterility are not removed, then there are no more animals to breed from; another logical conclusion which has occurred only too frequently and is therefore considered catastrophic rather than absurd.

Again the author confuses somatic with genetic variation and fails to understand that the patterning of Wright's guinea pigs was probably due not to hereditary factors. He further tries to reduce to terms of 'blood' characters known to be inherited in a fairly simple manner. It is surely unnecessary to suggest that the well known pattern of the Hereford Cattle could be attained only by inbreeding. Inbreeding doubtless was a concomitant in the fixation of the Hereford type, but it would not be a difficult task to achieve this pattern without endogamy. Similarly the author states that dominance of the white colour of the Wild Park Cattle of Great Britain is doubtless due to inbreeding. If so, can he then explain why pure bred polled Shorthorns, a breed of less than a quarter of a century's standing, when mated to Shorthorns, Freisians, Ayrshires, Herefords, breeds which have existed and been bred pure and inbred for their characteristics for anything up to eight times as long as the Polled Shorthorn, always throws calves which are polled like the recent breed which has not been inbred? In both these cases it is simply a matter of understanding the mode of inheritance of unit characters without any reference to 'blood.'

Nowhere does Sewall Wright claim that his co-efficient is an exact measure of homozygosity. It looks as though for many years to come we shall have to carry on without such a tool. All criticism of existing methods is therefore very much to be desired and undoubtedly a case could be made for the estimation of inbreeding on the lines along which Baahsuus Jessen has indicated. But beyond the fact that he has done service by laying emphasis upon the need for selection, little benefit can be gained by such a paper. To the untrained, it is positively misleading in parts. While all suggestions and essays are much to be desired, it must be remembered that this important field of genetics has been carefully gone over by some of the best trained geneticists including Galton, Pearson, Pearl, Wright, Jennings Shull, East and others and that he who would further cultivate the subject must be thoroughly conversant with the tools used by those who have gone ahead, with their methods, and with the fruits of their labours.

A.D.B.S.

Heredity. Vol. VIII. Nos. 1, 2. pp. 1-254.

MORE than half this double number is devoted to a magnificent study (in English) by J. Clausen on his varietal and specific crosses in *Viola*, involving some 20,000 individuals from 28 different crossings. The varietal crossings were carried out by the diallel method, the same individual being crossed with the other types, in almost every possible combination; this extremely powerful method should be more widely known than it is. The *viola* crossings have cleared up a situation involving ten factors for flower colour, and two for erectness of stem, while the complexity of the determination of 'style spot' is revealed without however being fully elucidated. On the basis of this intensive study of varietal characters the crosses between *arvensis* and *tricolor* can be interpreted; the three most important specific differences are shown to be simply Mendelian, the species differing in addition in a very large number of other Mendelian factors. It is thus possible to gather a quantity of detailed information as to the course of the chromosome irregularities induced by species crossing, and to the constant types with new chromosome numbers which may be obtained from them.

Göte Turesson (pp. 141-206) continues his geno-ecological studies with an account of the local habitat types of the grass, *Festuca ovina*, paying particular attention to the effects of the adoption of vegetation methods of reproduction.

R. A. FISHER.

Eugenical News. Vol. XI. March, 1926.

The Committee on Race Betterment in co-operation with clergymen of the American Eugenics Society has announced a competition for the best sermon preached in America on Eugenics.

Journal of Applied Psychology. Vol. IX. No. 3.

- (i) MANSON, G. P. 'Personality differences in Intelligence Test Performances.'
- (ii) DAGNY, SUNNE. 'Personality Tests: White and Negro Adolescents.'

- (iii) BRANDENBURG, G. C. "Personality and Vocational Achievement." Part 2.
- (iv) HOITSMA, R. K. "The Reliability and Relationships of the Colgate Mental Hygiene Test."
- (v) OTIS, F. E. "Phenomenal Memory in its Bearing upon Various Mental Tests."

Perhaps the most important sentence in these articles is that in which Miss Manson admits that "Psychologists, especially those who have concentrated upon standardising and interpreting intelligence tests, are becoming more and more convinced of the fact that intelligence test scores need to be supplemented by other standardised measures if high correlations are to be obtained between test results and criteria of success." The efforts to distinguish temperamental factors and to avoid vague use of the terms "intelligence" are welcomed by expert opinion, which advocates strongly more refined methods of analysis. Any thoughtful person who considers the immense variety of human personality and who realises the diffidence with which most of us would attempt to sum up the personality and intellectual capacities even of those friends or employees whom we have known and studied for years, will realise the difficulty of finding a criterion for personality by a brief test, however carefully planned. Miss Manson attempted to work out the factor of "caution" in personality and by means of complicated tests arrived at the conclusion that her Group I., a business group, was more inclined not to follow instruction given, if disregard of these instructions would probably gain them more marks, and that Group II. (mostly teachers) feared to put down an incorrect answer. This fear the giver of the test considered as timidity and lack of initiative—but others might consider it as an important evidence of a scientific training which leads naturally to a dislike of making a statement as a guess and not from knowledge. In other words the psychology of the person giving and discussing the tests is a factor of importance in considering their value.

(i) The personality tests for adolescents seem to the reviewer of most questionable value to the unfortunate adolescents tested, whatever their value "in diagnosing difficult school and social adjustments." Some subjects, such as divorce, are beyond the power of the adolescent to classify as to degree of right and wrong. The tests as a whole seem calculated to emphasise and arouse by suggestion many dangerous emotions in adolescents.

(iii) This paper is based on 36 cases only and is therefore of only limited final value. The list of qualities on p. 289 with the percentage mark given to the students for such points as "sincerity," "moral habits" (whatever this elusive term may mean) is interesting. By what means such things may be judged and what was the percentage mark of the assessor as to critical faculty would need to be known before it was possible to say that such things do not count. The vexed question of "appreciation of humour" which has in these islands led to such heart burning between us and our northern neighbours has apparently no terror for the author, who classes its relation to income as 0.53, whether with conscious or unconscious humour, the reviewer is unable to test.

(iv) The writer of this paper comes to the conclusion that the data shows that the Colgate Mental Hygiene tests are reliable enough to use in making group comparisons, but that whenever one attempts to draw conclusions or establish a difference between individuals, obstacles are certain to be met. They would seem to give important evidence of general differences displayed by groups of different ages but the author considers that Section IV. of Schedule B1 needs revision.

(v) This is a study of a lad who has no fitness to conduct his life and is a sex pervert, but has an extraordinarily retentive and accurate memory. One sentence throws a vivid light on the dangers of the widespread publicity and discussion of all these mental tests. "This rating, however, can be immediately discarded. His uncle, not wishing him to be rated as a mental defective, coached him on the answers to the Terman test." The mental tests gave no marked indication of his extraordinary memory and the reviewer feels that, in this particular case the knowledge of the past behaviour of the lad and of his poor heredity are of much more decisive importance than the results of the intelligence tests to which he was subjected.

R. FLEMING.

Powers, N. E. *The Classification of Mental Deficients for a Special Class Centre.*

The way in which America is facing the problem of the education of higher-grade mentally deficient can be gathered from this article. The answers to a questionnaire on the subject circulated among education authorities are given. There is also an account of work of this kind in Boston, with notes on the parentage, age, home-environment and intelligence level of the pupils concerned.

Eastman, E. *An Information Test Applied to Juvenile Delinquents.*

A test for measuring social efficiency, for use in connection with a Juvenile Court, is here described. The test is designed to measure the child's grasp of the kind of everyday general knowledge which can be picked up in the normal home. Scores are compared with school grade and with mental and chronological age, and variations due to sex, race, social status and degree of mental instability are noted.

Worthington, M. R. *A Study of Some Commonly used Performance Tests.*

Eleven of the best-known Performance Tests are analysed in this paper, to determine which have diagnostic value for estimating general intelligence, and which measure special abilities. Distributions and correlations with Stanford-Binet tests are given.

Arthur, J. *A Group Point Scale for the Measurement of Intelligence.*

This article should be read by those interested in the technical problem of increasing the value of intelligence tests by improving the method of scoring, and by an adequate system of weighting. An interesting formula for measuring the discriminative value of tests is used. The point-scale type of test is the most logically defensible, but the system is as yet incompletely worked out, and any additional work upon it is welcome.

Morgan, J. J. B., and Hull, H. L. *The Measurement of Persistence.*

This is an interesting attempt to find an objective method of measuring an important character-trait. Subjects were asked to solve maze-puzzles of increasing difficulty, and rated on a nine-point scale according to their method of tackling the problem. High correlations were obtained with estimates of the persistence of the same subjects, given by independent judges. It would be interesting to know whether sex-differences in persistence were found.

E. L.

The Journal of General Physiology. Vol. VIII. No. 3. Pp. 215-231.

The Influence of Alcohol upon the Growth of Seedlings. Raymond Pearl and Agnes Allen.

THIS is an account of a careful series of experiments in which melon seeds were dipped into weak solutions of alcohol for three hours and then left to germinate and grow in distilled water only. The treated seeds grew into plants larger, in some cases by over 30%, than the controls. With increasing dosage of alcohol the percentage of seeds actually germinating was reduced from 84 for pure water to 64 for 16% alcohol solution. Dr. Pearl suggests that the seeds thus eliminated by the action of alcohol are those which were inherently weak. The survivors are therefore naturally stronger, and when transferred to distilled water grow into plants on the average healthier and larger than the average of the unpurged material

M.S.P.

The Journal of Heredity. Vol. XVII. No. 3.

Resistance of Peach Hybrids. W. T. Horne, G. P. Weldon, and E. B. Babcock.

THIS is an account, in rather vague and general terms, of a successful experiment in breeding peaches suitable for growing in the hot dry climate of Southern California, by crossing some of the usual commercial stocks (which do not stand the Californian drought) with a variety from South China which is well adapted to an arid climate.

M.S.P.

Mental Hygiene. April, 1926.

Insanity and Crime (pp. 265—276). William A. White, M.D.

Society must be protected from anti-social individuals irrespective of the causes which may have led them to commit crimes, but once under restraint it is a duty to study each offender, and review his past history, individual, social and hereditary, in order to ascertain what sort of people commit crimes, and having found out to deal with them for what they are.

A certain proportion will always be found to be hopeless as social assets, and these dangerous individuals should therefore be segregated irrespective of the particular crime which may have brought them into public notice, and such segregation should be appropriate and indeterminable.

Anyone who has had experience with the unbalanced must be aware that a very large majority are just sufficiently on the borderline to be uncertifiable in this country either under the Lunacy or Mental Deficiency Acts, and as things are at present they must be released at the end of their sentences to be a further menace to their immediate families and society. Such a situation is both cruel and uneconomic.

E.I.C.

Social Adjustment of Moron Girls. Eleanor Rowland Wembridge. Pp. 307-317).

For the past ten years the Women's Protective Association of Cleveland, Ohio, has operated its own mental clinic. This article is a study of success and failure in dealing with 50 of the mentally deficient cases, with a view to determining the conditions that prevail when they are permanently helped, and when they have proved to be unhelpable by the association.

The main fact that emerges from the inquiry is that early acquaintance with promiscuous sex relationship is the most serious drawback in rehabilitating moron girls. What is interesting from the eugenic point of view is that of the 25 failures, 19 were committed to feeble-minded institutions or reformatories, and of the successes 12 were either married or engaged to be married.

The writer herself reviews the situation as follows: "We find that our successful moron girls almost inevitably marry and have children. Her unsuccessful sisters in the institution are not breeding, but she is."

Whereas there must always be a lower level of intelligence in any society the general social question remains: If the successful moron girl is mating with the moron boy who in turn is successful enough to support her, is the next generation better or worse off than if they had all been total failures, and incarcerated for life before their family was born? The writer believes that if institutions were adequate, placement outside might be a doubtful gain unless the birth-rate of those outside were checked. But granted the fact that institutions are nowhere adequate to admit all those on their waiting list, and granted that those outside, whether successful or failures, are breeding their kind in any case, there is little doubt that the sum total of human safety and contentment is increased by non-institutional training of moron youth in moderate habits, self-support and family happiness, before they have acquired a false standard of living which they have not the mental capacity to readjust."

E.I.C.

Journal of Criminal Law and Criminology. Feb. 1926.

Sterilization of Mental Defectives. Burke Shartel. Pp. 539-554.

In 1923 the legislature of Michigan passed an act "to authorise the sterilization of mentally defective persons." This act has recently been sustained in its main provisions by the Michigan Supreme Court in a case brought to test its constitutionality. In this article the writer examines the provisions of the Michigan act, and the constitutional power of the legislature to provide for sterilization of defectives, and the pros and cons of the whole question, both legal and social, are usefully discussed.

E.I.C.

The need for socializing Court procedure in commitments to the State Training Schools for the Feeble-minded. Nellie L. Perkins, Ph.D. Pp. 589-601.

It is evident from this article that the procedure with regard to the feeble-minded in America is even more unsatisfactory than in England. The same acute

shortage of institution accommodation exists, but whereas with us petitions are not filed unless the case is to be dealt with at once under some provision of the act, in the States a very large number of cases drop out or are completely lost sight of before a vacancy occurs. There is no provision for the notification of the applicant or social agency interested in the case, no system of care for the patient pending transfer to an institution, and when the vacancy eventually occurs only the family of the defective is notified, and may or may not respond.

There is a great deal of faulty certification, for according to the law, any practicing physician is eligible for assignment by the court, and it is not specified that he knows anything about nervous or mental disease. In the matter of releases and vacations no investigations are made, and patients are frequently released without even consulting the agencies' records. The Court which grants vacations has no facilities for making home investigations, their files contain no social histories, and there is no means of checking up to see whether a child returns to the Institution after the holiday. In fact the need for Voluntary Associations for the care of the mentally defective, such as exist now to some extent in England, is glaringly apparent in America.

E.I.C.

Mental Welfare. July 15th, 1926.

Mental Welfare and Endocrine Organs. Ivo Gelkie Cobb, M.D. Pp. 63-70

A useful article on the functions and structure of the ductless glands, and their importance with regard to bodily health and mental efficiency.

E.I.C.

National Health. July, 1926. Pp. 17-20.

Early Diagnosis of Mental Deficiency. E. A. Hamilton-Pearson, M.B., Ch.B.

The importance of early diagnosis is great. Where ante-natal causes operate, treatment can be preventive. In the case of Cretins, if early treatment is instituted from the earliest months of infancy, the child will develop normally. The state of speech gives much information. If a child of three cannot speak, we may suspect mental deficiency, deafness, or congenital aphasia. The last is very rare. Stammering does not indicate mental deficiency. Idio-glossia—that is, the child's habit of speaking in a language of its own, unintelligible to other people—is not necessarily a sign of mental deficiency, it is more often the language of the child's phantasy, and an indication of a lonely up-bringing and solitary playtimes. A frequent speech defect of the mentally deficient is the repetition of any question or remark addressed to it. The child is unable to comprehend the meaning of the words it hears, and, parrot like, merely echoes sounds. Inability to perform co-ordinated movement—such as holding up the head, the power of sitting up when unduly delayed, may be a sign of mental deficiency. Weakness of the power to grasp things, lack of co-ordination of the eye-muscles, persistent and repeated swaying of the body, jerking of the shoulders, and grimacing are other signs. Persistent hand-sucking, aimless restlessness, insomnia, ceaseless screaming and crying, should excite suspicion. The facial expression, the shape and size of the skull, certain stigmata, such as marked epicanthic folds, a high-arched palate, narrowness of the naso-pharynx, bad development of the jaws, tacking down of the lobes of the ears to the cheeks, harelip and cleft palate—all these may raise a suspicion of mental deficiency. Cretins can be recognised without much difficulty and the treatment is effective. Mongols show a marked facial resemblance to the Mongolian races, and differ in many respects from cretins, such as the shape of the head, the character of the hair, and in other particulars. Microcephaly is a common type in mental defectives. Mental defectives are often epileptic.

The prognosis in certain forms of mental deficiency is now somewhat less gloomy than formerly if early diagnosis and suitable treatment can be secured.

J.A.L.

Scientia I. VIII. 1926. Pp. 89-100.

Le Peuplement de l'Amerique Precolombienne by P. Rivet.

The problem of the origin of American man has been confused by two errors—the assumption that the aboriginal Americans constitute a unitary race, and want of clearness in determining the modes in which the peopling of the American Continent may have been effected. The different races present many points of contrast,

and it would appear that there has been a large amount of miscegenation. They are largely hybrid. It is certain that American man was an immigrant from the Old World, and his arrival was probably towards the end of the Quaternary Period, when the American Continent had assumed its present contours. At the time of the discovery of America the inhabitants were mainly in the neolithic stage of civilisation, but in certain rare regions they had attained to the age of bronze. Iron was not known, and there was no writing, no wheat, barley, or rye. Many facts point to the conclusion that the American Indians came from Asia—the colour of the skin and of the eyes, the form and colour of the hair, the sparseness or absence of beard and moustache, the frequency of the “tache mongolique,” and in many instances the obliquity of the palpebral slit and the prominence of the cheek bones. Hrdlicka has pointed out that the Indian type is represented in Siberia, Western China, Mongolia, Tibet, Corea, Japan, the Philippines, and Formosa. The immigrants to America seem to have belonged to various types of the Yellow race. Their route was probably by the Behring Straits which was practicable only after the retreat of the glaciers. It must be admitted that linguistics give only a limited support to this theory. But this theory is not exclusive. There are types in California and South America which present evident affinities with the race with a high and long skull which is dominant in Melanesia and Australia. Many utensils and many customs are common to Malay-Polynesia and America. Mutilations of the teeth are found in the Malay Archipelago, in Mexico, in Yucatan, and on the equatorial coast of America. An important American group shows linguistic affinities with Malaya and Polynesia. The date of this Malayo-Polynesian immigration must be very remote, and these immigrants have mixed with those from the Asiatic continent. Linguistics, anthropology, and ethnography also suggest an Australian element in the American population. This element appears to be limited and sporadic. The path of access of these various races cannot be determined with certainty. The Malays and the Polynesians were great sailors and may have come directly by sea. There are various theories as to the mode of access of the Australians, but the question remains open.

The above views may not cover the entire ground. Other racial elements may be present in America. The remarkable Maya civilisation of Honduras still awaits explanation.

J.A.L.

Scientia, Vol. XL., N.CLXXIII-9.

“*Les instincts de l'homme*,” J. Languier des Bancelles.

If, as is now generally recognised, ‘intelligence’ in man is a tool to be used in the service of his instincts, which are the real driving forces of human (as of all animal) nature, it is important that these should be understood. For, as M. Languier des Bancelles points out, “a large part of education consists in inhibiting this or that instinct.” One might go even further and say that all education of character aims at controlling our instinctive impulses; and all education, in the sense of imparting information, in reality is—immediately or remotely—concerned with that end.

There is hardly a subject in Psychology with regard to which there has been more controversy than that of instinct. Some psychologists have held that there are exceedingly many, others that there are exceedingly few instincts in man. The difficulty seems to arise partly from the vague meaning of the term instinct itself, partly because in man its manifestations, as far as the objects provoking instinctive acts are concerned, are protean. Where adaptability in the behaviour prompted by instinct is so varied, instinct itself seems to be swamped by ‘intelligence.’

Languier des Bancelles stresses the conative aspect in his definition. He makes instinct an innate impulsion, and instinctive acts those which living organisms execute impulsively in default of previous experience of them. This enables him easily to link up instincts with reflexes as the latter occur, not in isolated ‘preparations,’ but in intact living beings. No boundary line is to be traced between the two. They cannot be distinguished as reactions of single organs or of organisms. Nor can they be differentiated by the presence or absence of consciousness; nor by any pretended specificity of stimulus or situation provoking them.

Acquired reflex reactions can be grafted upon innate ones (conditioned reflexes) in a more or less stable way by contiguous association. Similarly, associations

can be formed—as Locke noted—with regard to instincts. The innate instinctive fear of a young child manifested at loud noises can become attached to an animal, of which previously it had no fear, when that animal is presented to it simultaneously with the noise. Subsequently, even a bit of fur will provoke a similar reaction. Association by similarity operates here as well as association by contiguity. Thus there are original and acquired reactions of an instinctive nature as well as original and acquired reflexes.

What, then—since so much in the way of acquisition can overlay native reaction—is to be reckoned as original instinct in man? The only criterion we have lies in the observation of the behaviour of infants; and in the last resort, when this fails, of that of animals; for we cannot always observe children readily in the necessary experimental conditions. The principle to be followed is that the earlier the reaction is manifested the more likely it is to be instinctive. This principle, however, must be applied with caution. Though instincts are innate, they only lead to action when appropriate occasion presents itself. If this does not happen, the instinct does not develop.

Though these are the rules for determining original instincts, Larguier des Banceles is clear that neither the observation of infants nor of animals has been carried out sufficiently to provide in all cases data for their application. Accordingly, those instincts are to be reckoned as primitive which it has up to now been impossible to analyse.

Applying these rules and principles, the author puts forward a brief classification of six groups of specialised instincts. This classification in some respects differs from previous ones. The ‘hunting’ instinct suggested by Carveth Read is noted among the group of ‘alimentary’ impulses. Man still is a hunter instinctively, though, through lack of occasion, the instinct is rarely activated in civilised communities. Altruism is not to be derived from parental affection, but is itself a special instinct. In the ‘social’ group (gregariousness and imitation) come the instincts of domination and submission which are at the root of the hierarchical organisation of societies both animal and human.

All instincts, in general, are serviceable both to the individual and to the race. A difficulty arises in regard to instinctive fear and rage, which are harmful. But these are not really instincts. They are emotions; and they arise only when some self-preservation instinct fails to work properly. There are situations in which one *must* fight or flee. The conflict of these tendencies brings about a mental disorder—the emotion. Emotion thus shows itself as a substitute for instinct. This view may be compared with—say—McDougall’s. But it is worth consideration.

F. AVELING.

Social Pathology. U.S. Public Health Service. Vol. I. No. 9.

Most of the articles in this number deal with Venereal Disease. Dr. P. E. Bowers writes an article on Eugenics, strongly advocating certain reforms, and arguing well in their favour. He gives the number of delinquents, criminals, blind, deaf, dumb, paupers, insane and feeble-minded in the U.S.A. as amounting to 723,000. By a personal examination of 5000 prisoners, he estimated that ‘the antecedents of 44 per cent. of these convicts were psychopathic individuals.’ (p. 478). This percentage is considerably higher than that given by any English authority. We are rather surprised to find that he holds that syphilis may damage offspring to the fourth generation. An article on Heredity vs. Training is reprinted from the New York State Journal of Medicine, in which the rôle played by heredity is inadequately dealt with. Many physicians are quoted, to show how powerful is environment; but when a psychologist is quoted from a newspaper to the effect that any baby of bad stock could be made to become a specialist of any type by careful upbringing, this is apparently felt to be a little too strong. This ‘psychologist’ would do well to study the life of Mr. Day, the author of *Sandford and Merton*. He obtained two girls from an orphanage in the confident belief that he could train at all events one of the two to become an excellent wife for himself. It was a dismal failure in both cases. Mr. Day was moreover equally confident in the power of environment over horses; the failure in this case taking the form of being thrown from his ‘trained’ horse, kicked on the head, and killed.

L.D.

Sociological Review, Jan., 1926.

Needed Hygienic Readjustments. Saleeby.

This is one of a series of articles contributed to a symposium on "The Coal Crisis and its Future." It deals with the advantages of sunlight in promoting health. The writer points out that, while we led the modern world fifty years ago in getting rid of the water-borne diseases, we are sadly behind to-day in attacking those which are borne by the air. Even cancer with all its victims does not kill half as many people as the respiratory diseases. The remedy proposed is to distil coal instead of burning it. We cannot by a stroke of the pen adapt all existing houses for central heating but we can, it is suggested, build our new houses aright. It is to Dr. Saleeby's credit that he is able to put some freshness into a sermon which he has preached so often before: it is to our discredit that the need for the sermon is as great as ever.

D. C. JONES.

Sociological Review, Jan., 1926.

The Conditions of Eutopian Repair and Reconstruction. Branford.

In a brief review it is impossible to do justice to this idealistic essay which must be read to be appreciated. It is divided into four parts:—I.—The problem is presented of how to integrate into unity of purpose the different economic systems arising in cities where the dwellers are analysed according to their supposed prototypes.

II.—The indictment against our pecuniary tradition, starting in the first section with the waste of material resources and energies, passes on here to the waste of emotion, thought and imagination. Repressed impulses and unfulfilled desires result in reversions and perversions, in false ideas of culture and idle if not base uses of leisure.

III.—To create social harmony there is needed a well planned integration of personality and community. . . . but a cleansing of the spirit is an indispensable pre-requisite.

IV.—This great adventure of city making can be pursued with faith if we do not pay homage to sanctity of symbols divorced from the processes of life, amass token of wealth severed from the operations of labour, and parade insignia of power sundered from human values.

D. C. JONES.

Sociological Review, April, 1926.

The Social Origin of Farmers in Wales. Ashby and Morgan Jones.

The writers of this article have tried to do for the farming industry in Wales something like what Chapman and Marquis did for the cotton industry in Lancashire some fifteen years ago, and any statistics on the "social ladder" question, about which so little is really known, are exceedingly welcome. The enquiry seems to have been carefully planned and information was obtained concerning 834 occupiers of farms in all but two counties. In brief, 75 per cent. of the existing farmers were found to be descended from farmers, 11 per cent. were sons of farm workers, and 13 per cent. were the sons of other manual workers. Also, those who entered farming not being sons of farmers tended, as one would expect, to enter on the smaller farms. A further question, as to length of tenure, might have been asked. The answers to that would perhaps have given some hint as to the success or failure of newcomers without previous experience of agriculture.

D. C. JONES.

The World's Health, July 1926, pp. 284—287.

The Health of the School Teacher, by Professor Frank Smith.

The school teacher should be healthy, if it were only that he or she should be able to react to healthy and vigorous youth. The unhealthy teacher, the ailing teacher, the depressed teacher, are not the right companions for the young. We have as much right to demand physical fitness as intellectual or moral fitness. Further, ill-health is costly both to the individual and to the community. In the case of industrial workers the rate of sickness calculated by the Ministry of Health during the years 1913—21, based on over 12,000,000 workers shows an annual loss of 5.28 days for each man, and 6.72 for each woman. A similar calculation was made some years ago regarding the London teachers during the years 1904—1923.

which showed that the men teachers lost 4.6 days by illness in a year, the single women 8.2 days, and the married women 9.3 days. This result is surprising as teachers are a selected class who have undergone a medical examination, they enjoy a fairly high standard of comfort, they do not suffer much from exposure and changes of temperature, they have far greater opportunities for rest and recreation than the workers generally, yet they lose about the same amount of time through illness as workers in general. There must be some element of unhealthiness in the teacher's work. On the other hand, the death-rate among teachers between the ages of 21 and 65 is low—viz., 4 per 1000. The inference is that the teacher's ill-health is due to a succession of minor ailments which do not endanger life. The London investigations showed that 88 per cent. of the absence was caused by 21 per cent. of the teachers, and 43 per cent. was caused by only 3 per cent. of the teachers. The classification of the teachers ailments showed that "pulmonary bronchial, and throat complaints (including influenza)" cause 43 per cent. of the absences, and nervous and mental complaints 15.6 per cent. These were the chief factors. It is probable that many school-rooms are unhygienic. Large classes are responsible for much nervous strain.

The health of school children is now receiving much attention with most beneficial results. It is possible that the health of the school teacher is insufficiently regarded. It should be studied in the same scientific way as the health of the children is now studied.

J.A.L.

OFFICE NEWS.

This has been an eventful quarter for the Society. The business of Incorporation which has long been contemplated, has at last been brought to a successful conclusion. The Society is very much indebted to those Members of the Council who helped in the matter, but above all to our Solicitors, Messrs. E. F. Turner and Sons, who have voluntarily undertaken the minute and tiresome work entailed; and it is due entirely to their unremitting and efficient energy that we owe the sound Articles and Memorandum on which our new Association is based.

The Council determined early in the year that the moment had arrived for the Incorporation of the Society under the Companies Acts. This will involve a few slight changes, and possibly the most urgent point to bring to the notice of the Members is the fact that should the Company (Society) at any time become insolvent, they will be called upon for a sum limited to £1 (one pound). The other side of the shield is the fact that these statutes enable the Society to hold property. Present assets are sufficient to avoid all risk to members, it is confidently believed, whilst it is anticipated that other funds will from time to time be received. The chief practical alteration in our Rules is that Members have to be elected. Persons applying for Membership will however, not need nomination.

NEW QUARTERS.

Another land-mark is the move to new premises—three rooms on the second floor of No. 20 Grosvenor Gardens. Members will notice that as the Library is also the Council and Committee Room, books can only be borrowed or read on the premises on Monday, Tuesday, Thursday and Friday.

STAFF.

In our last issue we mentioned the loss to the Society of Miss Boyd's help, and much regret that we have this quarter lost Miss Carter, who during her time in the office saw the propaganda work double its dimensions. Miss Carter worked always with great enthusiasm, and her helpful suggestions will be missed by everyone in the office. Miss Greenleaves has now begun work as Assistant Secretary.

VOLUNTEERS.

We are fortunate in being able to rely on very much volunteer assistance; indeed without it, present work could not be coped with. The difficult holiday season has brought us regular help from Miss Bartlett, who is undertaking the work of Assistant Honorary Librarian. Mr. Eldon Moore is doing much press correspondence for us, in addition to a good deal of research. Former helpers are still to be counted on—Miss Lamb, Miss Lauder and Miss Cheffins.

A good deal of search was entailed before a choice of four or five suitable vacant offices could be secured for the Honorary Officers. In this difficult work Mr. Orr and Miss Kerr were persistently engaged. Mrs. Tate also helped. The office staff cannot speak too gratefully of this support.

For some months recently, we had very able help in Reviews and Notes from Miss Agnes Birrell, and it is with the greatest regret that we learn that she died suddenly on August 22nd.

Miss Birrell was a keen Eugenist, and the loss of her support is a very real one.

LIBRARY.

Since the publication of our new Catalogue the number of readers who borrow from the Library has increased considerably. The books received are more numerous than heretofore: for Eugenic literature grows apace. In consequence on removal we found it necessary to spend a large sum in book shelves, and any contributions from interested readers on this account will be welcomed.

FILMS.

The Summer is not a good time for activity with the film; our reel has not been shown except privately.

EXHIBITIONS.

Our Exhibition was shown at the Leeds Summer School for Teachers of Defectives arranged by the C.A.M.W. July 22—24. Miss Lodge acted as Demonstrator. At the Refresher Course held in Aberystwyth, Mr. Moore demonstrated from the same material August 9—10th. The Exhibition is largely booked for early Autumn. Considerably increased funds will be required if the Council's scheme for exhibition at Agricultural Shows is to materialise. This form of propaganda is popular and appears to be very effective; it is however, also expensive.

DISCUSSION MEETINGS.

The attention of Fellows and Members is called to the notices they will receive of a series of Discussion Meetings to be held in London during the Winter Session. This might well be regarded as a training course for propaganda work. The invitations for speakers at small meetings for very varying types of audience, make it necessary to look for additions to the number of those Members who are prepared to lecture or teach.

The programme has been carefully thought out so as to cover the major points of the new practical programme adopted by the Council, and at the same time to review the particular natural laws which form the foundation of Eugenic theory. It is hoped that Fellows will make this known amongst their young friends, amongst students and working men interested in social problems, so that the discussions may be as wide and useful as possible. The procedure will be short opening speeches by people whose names are announced to take part, followed by general discussion, each speaker taking five minutes and being allowed to intervene frequently. The leaders will be allowed time to sum up.

PRACTICAL PROGRAMME OF EUGENIC REFORM.

Fellows and Members are reminded that since the issue of the last REVIEW, they are for the first time in a position to offer to friends and to inquirers, a scheme of Eugenic Reform. Copies of the outlined policy can be had from the office in any quantity at 1d. each, and it is greatly hoped that a number of people will be good enough to take the trouble to send them, with the leaflet describing the Society's Constitution, and invite the membership of as many personal friends and acquaintances as they can. Personal contact is the determining factor in bringing in the Members and Fellows, and it cannot be urged too strongly, that if every Member and Fellow would make some effort before the end of the year, the Honorary Officers would look with confidence to the future. Our growing expenses make the moment an anxious one on our present low Membership basis.

BIRTH CONTROL CONFERENCE.

It will interest the Society to learn that by permission of our Council, conferences have been held at its office between all the groups conducting Birth Control Clinics, on a voluntary basis. Dr. Bond and Professor Huxley acted as Chairman and Vice-Chairman on these occasions, and the exchange of views and experience has proved of great interest and will, it is hoped unite the investigations which all practical workers feel to be needed in many directions.

SOUTH AFRICA.

Professor H. B. Fantham, Chairman of the Eugenics Committee forwards us interesting details of Eugenic and Genetic Propaganda in South Africa.

At the annual Meeting of the South African Association for the Advancement of Science held in July in Pretoria a paper on "Some Thoughts on the Social Aspects of Eugenics" was read by Professor H. B. Fantham before Sections D (Zoology), E. (Anthropology and Ethnology) and F. (Mental and Moral Science of Education).

A short course of lectures is being given in the University of the Witwatersrand at Johannesburg on "Heredity and Eugenics." by Professor H. B. Fantham.

A lecture was given in the Town Hall at Fouriesburg on "Heredity in Man" at the request of the Teachers' Conference.

Professor H. B. Fantham addressed the South African Biological Society, Pretoria Branch on "Eugenics," in one of a series of lectures to be given monthly to the Society in Pretoria by prominent South African Scientists.

An address was also given to the Johannesburg Central T.O.C. group.

IMMIGRATION.

The Consultative Eugenics Committee of Norway has on several occasions discussed the guiding lines on which a control of immigration ought to be built. Dr. Mjoen gave a brief resumé of these lines, summing up in the following sentence:

Every country must take care of its own inferior race elements and not send them over the frontier to neighbours. The chances for new crimes grows proportionately with the radius of the new field of operations.

We shall not treat the crime, but the criminal. Migration problems must be solved by international rules and international co-operation.

Every individual in the world should possess a biogram and in travelling carry it with him (Identity book) Compare Eug. Review 1925. The Norw. Identity book).

Where a simple and practical system with identity book is introduced the passport and visa and control at the frontier can be dispensed with—but first then—and every honest working man can go free of any control from one country to another, and the criminal will have the greatest difficulty in travelling.

BRITISH ASSOCIATION.

It is very noteworthy how widespread the interest in human heredity in general is becoming. Even to careful readers of the accounts in the Daily Press of the British Association, it has been clear that hardly a paper was read on the organic side (apart from purely botanical or zoological papers) in which some reference to modern theories of evolution and their bearing on human problems, did not occur. But the extension of this interest went beyond the merely organic subjects into Sections dealing with Education and Economics. Eugenists should particularly note the Presidential Address of Sir Josiah Stamp. It is remarkable to find a purely Economic Treatise dealing seriously with Eugenic problems. At the end of his paper on "the Inheritance of Wealth," the President deals with the inheritance of ability, and the question as to how far the man who has amassed wealth, in handing on his accumulation to his offspring, conserves this original asset by being able to endow his children from the start with the possibility of maintaining the grade of culture to which he has raised himself. This is equally true of the bequest of inherited wealth. From his treatment of this subject, one is led to wish that a little more serious investigation into actual family histories could be promptly undertaken and published.

The main contention of the paper is however, of greater interest to Eugenists than the author appears yet to have observed. He seeks a conclusion in the main as to whether the power of the individual to hand on his wealth to his children acts more powerfully as a stimulus to production, in that each man feels a strong inclination to produce and conserve more capital than he could himself enjoy to the full; or whether the feeling among the rank and file of producers, who are not themselves accumulating any considerable wealth (or at least enough for conservation in the form of capital), is something approaching envy—that is, a constant discontent which he calls a "social irritant." This feeling it is contended, may very well lead to the withholding of the fullest possible work, to "Ca canny" and like methods of restricting production. To the Race student, this may well appear to be a question calling for other than a wholly economic solution,—a question at bottom biological. To certain races, the feeling that each man is free to accumulate what he can, will be the incentive: in other groups, more reflective, more imaginative, (and possibly with an inherent tendency to melancholy), individuals will concentrate more on what they are not acquiring, than on the right, and the open field to acquire. It is not at all inconceivable for example, that in countries where immigration and migration exists to any considerable extent, a change in the outlook and attitude of labour may not be so much due to a change in social conditions as a change in the racial make-up of the majority of the workers. A study of English industry of the past fifty years, gives indications pointing in this direction. The Eugenist will further tend to criticise Sir Josiah Stamp for still speaking of such a figment as "the average Psychology." As long as Economists can speak of anything so far removed from fact as an "average man" and fail to come to grips with the racial tendencies of each particular group with which they are dealing, so long will economic science fail of actual and correct solution in social problems.

MEETINGS.

- July 4th. Winchester Brotherhood. Mr. Dixon Kingham.
 „ 5th. Woking Rotary. Mr. Dixon Kingham.
 „ 6th. Royal Sanitary Institute Congress, London. Dr. Tredgold.
 „ 12th. Twickenham. "Population, Quantity and Quality." Dr. Drysdale.
 „ 13th. Drawing Room Meeting given by Mrs. H. B. Pease. Mrs Rolfe,
 O.B.E., Mr. R. Dixon Kingham.
 „ 20th. Welwyn Garden Rotary. "The Meaning of Eugenics." Mrs.
 Hodson.
 „ 26th. Loughborough Rotary. Hereditary and Mental Defect. Dr. Newth.
 „ 28th. Margate Rotary Club. "Eugenics." Mrs. Hodson.
 „ 29th. Epsom Rotary. "Racial Decline." Mr. Eldon Moore.
 Aug. 1st. Poole Brotherhood. "Keepers of our Grand-children." Mrs.
 Hodson.
 „ 10th. Friern Barnet. "Heredity." Mrs. Hodson.
 „ 12th. Inverness Rotary. "Eugenics." Mr. Bramwell.
 „ 16th. Huddersfield Rotary. Mr. Eldon Moore.
 „ 17th. Croydon Rotary. Mr. Dixon Kingham.
 „ 17th. Islington Labour Party. "Heredity." Mr. Eldon Moore.
 „ 22nd. Christchurch Brotherhood. "Eugenics." Mr. Eldon Moore.
 „ 25th. Coventry Rotary. "Heredity and Mental Defect." Dr. Newth.
 Sept. 2nd. Kennington Labour Party. "Mendelism." Mr. Eldon Moore.
 „ 6th. Eastbourne Rotary. Mr. Eldon Moore.
 „ 19th. Labour Party, Nottingham. "Heredity and Society." Mr. Eldon
 Moore.
 „ 21st. Friern Barnet. "Environment and Heredity." Mrs. Hodson.
 „ 22nd. Montrose Rotary. "The Child and the Race." Dr. Blaikie.
 „ 26th. Eastleigh Brotherhood. "Heredity and Crime." Mr. Eldon Moore.
 „ 27th. Romford Labour Women. "Heredity." Mrs. Hodson.
 „ 28th. Croydon. "What is Eugenics?" Mrs. Hodson.

REPORT OF THE MEETING OF THE INTERNATIONAL
FEDERATION OF EUGENICS ORGANISATIONS.

PARIS, July 2nd and 3rd, 1926. The Federation met this year in Paris by kind arrangement of the Vice-President, M. March, and the Members of the French Society. M. March has, during the past year, been the representative of the Federation to the League of Red Cross Societies, and the Members were made welcome in the beautiful Meeting-room of the League at 2, Avenue Velasquez, holding all their meetings there as the guests of the International League of the Red Cross.

At the first Session, the President announced (after the more formal business), that the most important question for discussion was the invitation from the League to co-operate with them and to make 2, Avenue Velasquez the headquarters of the Eugenics Federation. The President proposed that this very interesting and important suggestion be carefully considered and a decision taken only at the second meeting. Elections were then proceeded with—Poland and South Africa were elected as co-operating countries, and two new Members were elected, Professor Fantham representing South Africa (Chairman of the Eugenics Committee of the South African Association for the Advancement of Science), and Dr. William Keilhau proposed by the Norwegian Consultative Eugenics Commission. These were both elected and Dr. Keilhau took his place at the table. Letters were read from Germany, regretting that no delegate was able to be present. Major Darwin explained that a letter accepting membership of the Federation from Dr. Krohne, written in 1924, had never been received, and that this explained the delay last year in acceptance of membership by Germany.

The items of greatest interest in the report of the Secretary-Treasurer were as follows:—That the Norwegian Delegate announced the death of Dr. C. Collin and the Federation resolved to send a note of condolence to his widow. Dr. Govaerts also reported the invitation of the Central Committee of Organisation for Heredity in Man in the Netherlands for next year's meeting.

The Second Session was held on Saturday morning at 10-0 o'clock and pro-

ceedings opened with a Resolution regarding an invitation to co-operate with the Red Cross. The following Resolutions were proposed and carried:

Monsieur March proposed the acceptance of the invitation of the League of Red Cross Societies.

Sir Bernard Mallet in support suggested certain changes in the *projet d'accord*, and after some discussion it was agreed that:—

“The President be authorised to sign the amended *projet d'accord* with the International League of Red Cross Societies, it being, however, understood that it will rest with the President of the Federation of Eugenic Organisations, for the time being, to decide what archives should be kept at, or transferred to, his secretariat.”

By this it is hoped that effective joint action may be taken between Eugenists and other groups of philanthropic workers who work jointly at 2 Avenue Velasquez; also when literature becomes a formidable burden at the President's Head Quarters, it will be possible to deposit in Paris everything not required for the general work of the secretariat. On the other hand, the President and Secretary for the time being will both be free as heretofore to make the official headquarters of the Eugenics Federation in whatever place is most convenient for their joint work during their term of office.

Reports were then taken from Committees; Dr. Mjoën presented a report from the Programme Committee. Sir Bernard Mallet reported for the Committee on Registration. The Assistant Secretary reported that owing to Professor Levi's illness, no further progress had been made with any of the volumes of the *Bibliothèque Internationale*. Miss Van Herwerden reported for the Pedigree Committee. She was asked by the English delegates to add figures to show ascendant generations.

Dr. Mjoën read a report on the new Immigration legislation proposed for Norway, a scheme which is very largely the work of the Norwegian Eugenics Commission. Reports of Committees having been received, it was agreed to circulate them in full or in part, and the Session terminated with a very hearty vote of thanks to the Directorate of the League of Red Cross Societies for their kind and generous hospitality.

Monsieur March proposed the election of the two Vice-Presidents for the ensuing year. Dr. Van Herwerden and Professor Gini were elected. Monsieur March also proposed and Dr. Mjoën seconded, the election of Professor H. Fairfield Osborn as Honorary Vice-President and of Dr. Davenport as permanent Vice-President, which was carried.

Dr. Govaerts presented a translation of the Federation Statutes in French and it was agreed to circulate these to the Members with a notice to the effect that in case of query the English version should be authoritative.

The Secretary-Treasurer proposed that the scope of Eugenics should be discussed at the next meeting of the Federation and this was carried. The President was further authorised to accept the kind invitation to Amsterdam for 1927.

This Meeting was memorable as being the first of the small Conferences which were resolved upon last year at the London Meeting. The Conference met at half-past two in the same hall in which the Federation sat, and in addition to the Federation Members a number of distinguished men were present to take part in the discussion and to read papers. The general public were not invited.

On the first afternoon, the subject was “Marriage Certificates,” followed by “Consanguinous Marriages.” Papers were read by—

Dr. Georges Schreiber, Secrétaire Général de la Société Française d'Eugénique (Paris).

Dr. Sand.

Dr. Govaerts, Secrétaire Général de la Fédération et de la Société Belge d'Eugénique (Bruxelles).

Prof. Letulle, Membre de l'Académie de Médecine (Paris).

Dr. Hoyer Médecin des Hôpitaux (Paris).

Dr. Vignes.

Dr. Frets of Holland.

Prof. Leon Bernard, Directeur de l'Institut d'Hygiène, Université de Paris.

Dr. Gauthier, de la Ligue Internationale des Sociétés de la Croix Rouge (Paris).

These interesting papers were too full to be reproduced in this report; it is hoped they will be published in the French and Belgian Eugenics periodicals. One or two will appear in the *EUGENICS REVIEW*.

Opinions on the matter of Marriage Certificates generally tended distinctly towards a voluntary certificate to be exchanged between the parties, rather than to any legislative compulsory medical certificate.

In connection with the subject of Consanguinious Marriages, Dr. Buchanan Smith of the Animal Breeding Department, Edinburgh University, read a paper on the inbreeding of Clydesdale horses and Shorthorn cattle. It is hoped that before long this will be published in full as the results are exceedingly interesting. It was shown that the degree of inbreeding which had been required in the two groups to produce a pure race with the strongly-marked characteristics and qualities desired was much greater in one than in the other. This is attributed to the sire in one race being more homozygous for the particular characteristics prized than the ancestor in the other group. In both the stocks closely inbred, a certain degree of sterility has appeared. But it is equally important and interesting to note that in both stocks a strain inbred to as high a degree as the sterile strain has nevertheless maintained normal fertility. In subsequent discussion a number of human stocks were mentioned in which inter-marriage had not apparently caused any deviation from the normal type.

On the following day the Conference discussed Immigration, beginning with a very lucid resume of the various waves of immigration into the United States given by Professor Siegfried.

This paper was followed by papers from:—

M. George Risler, President du Musee Social (Paris).

Dr. Apert, Medecin des Hopitaux, Vice-President de la Franciase d'Eugenique (Paris).

Dr. Gauthier.

M. Bourdon.

M. Lucien March, Institut de Statistique de l'Universite de Paris, Vice-President de la Societe Francaise d'Eugenique.

and a number of those present took part in discussions.

M. Lucien March read a translation of a paper by Dr. Fisher on Eugenics and the problem of the fall of Civilisations of which the English version is printed in full in the July number of the *EUGENICS REVIEW*.

The Federation members were most kindly entertained in Paris. The Societe de Co-operation Intellectuelle gave an At Home in the afternoon of July 1st in their beautiful apartment in the Palais Royal. Between the Sessions on the 2nd, the Members were given lunch in the Hotel of the Palais d'Orsay. M. Paul Doumer presided and welcomed the Federation in a delightful speech which was replied to by Major Darwin. On the Saturday, lunch was given to the Members by the League of Red Cross Societies at the Restaurant Le Doyen. Dr. Sand described this even as a wedding-breakfast, and wished numerous progeny to the newly-allied Federations in the shape of many years of happy co-operation and mutual help. The President in reply voiced the warm gratitude of the Federation for the delightful reception that they had had in Paris, and expressed their keen enjoyment of this very pleasant meeting.

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